

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

ATTORNEY DOCKET NO. APPLICATION NO. FILING DATE FIRST NAMED INVENTOR CONFIRMATION NO. 10/026,847 12/21/2001 03DV-9089 1175 Thaylen K. Leany 7590 **EXAMINER** 01/12/2005 John S. Beulick MORRISON, NASCHICA SANDERS Armstrong Teasdale LLP ART UNIT PAPER NUMBER Suite 2600 One Metropolitan Sq. 3632 St. Louis, MO 63102 DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

			0,~
	Application No.	Applicant(s)	
Office Action Summary	10/026,847	LEANY ET AL.	
	Examiner	Art Unit	
	Naschica S Morrison	3632	
The MAILING DATE of this communication appreciation ap	pears on the cover sheet with t	he correspondence addres	s
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a repl If NO period for reply is specified above, the maximum statutory period	136(a). In no event, however, may a reply by within the statutory minimum of thirty (30	be timely filed I) days will be considered timely.	nication.
 Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). Status	e, cause the application to become ABAND	ONED (35 U.S.C. § 133).	
1)⊠ Responsive to communication(s) filed on 12/	2/04 & 11/2/04 .		
	nis action is non-final.		
3)☐ Since this application is in condition for allow	ance except for formal matters	s, prosecution as to the me	erits is
closed in accordance with the practice under Disposition of Claims	Ex parte Quayle, 1935 C.D. 1	1, 453 O.G. 213.	
4)⊠ Claim(s) <u>1-20</u> is/are pending in the application	n.		
4a) Of the above claim(s) is/are withdra	wn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1-20</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and/o	or election requirement.		
Application Papers			
9) The specification is objected to by the Examine			
10) The drawing(s) filed on is/are: a) acce			
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).			
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.			
If approved, corrected drawings are required in re			
12) The oath or declaration is objected to by the Ex	raminer.		
Priority under 35 U.S.C. §§ 119 and 120			
13) Acknowledgment is made of a claim for foreig	n priority under 35 U.S.C. § 1	19(a)-(d) or (f).	
a) ☐ All b) ☐ Some * c) ☐ None of:		•	
1. Certified copies of the priority document			
2. Certified copies of the priority document			
 3. Copies of the certified copies of the prio application from the International Bu * See the attached detailed Office action for a list 	reau (PCT Rule 17.2(a)).)e
14) Acknowledgment is made of a claim for domest	·		dication).
a) The translation of the foreign language pro	ovisional application has been	received.	,
Attachment(s)	,,		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _	5) Notice of Infor	mary (PTO-413) Paper No(s) mal Patent Application (PTO-152	

DETAILED ACTION

This is the fifth Office Action for serial number 10/026,847, Stud Mounting System, filed on December 21, 2001. Claims 1-20 are pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/2/04 has been entered.

Claim Objections

Claim 4 is objected to because of the following informalities: on line 2 "comprising" should be --comprises--. Appropriate correction is required.

Claim 5 is objected to because of the following informalities: on line 11 "compromising" should be --comprising--. Appropriate correction is required.

Claim 12 is objected to because of the following informalities: on line 2 insert -one of-- before "a weld". Appropriate correction is required.

Claim 13 is objected to because of the following informalities: on line 3 insert -- said housing-- before "inner surface". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the recesses" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Regarding Claim 3, line 2 has ambiguous claim terminology where it is unclear whether latter recitations of originally cited terminology are intended to refer to the originally cited terms. It is unclear if "a plurality of raised projections" in claim 3, line 2 is intended to refer to "a plurality of raised projections" in claim 1, line 7.

Regarding Claim 4, line 2 has ambiguous claim terminology where it is unclear whether latter recitations of originally cited terminology are intended to refer to the originally cited terms. It is unclear if "an inner surface" in claim 4, line 2 is intended to refer to "an inner surface" in claim 1, line 5.

Claim 5 is rejected because it is unclear whether the combination of the housing and the motor is being claimed or merely the subcombination of the housing. Claim 5 recites the motor in a functional statement in the preamble of the respective claim, indicating the subcombination is being claimed, yet the applicant recites a further structural limitation to the motor in claim 1 (lines 4 & 5), indicating the combination is being claimed. Also, please see all depending claims for similar problems. For

Application/Control Number: 10/026,847

Art Unit: 3632

purposes of this Office action, the examiner will assume the **subcombination** is being claimed.

Claims 9 and 10 recite the limitations "said inner surface" and "said raised projections" in lines 1 and 2 respectively. There is insufficient antecedent basis for these limitations in the claims.

Claims 11 and 18 recite the limitations "said inner surface" and "said raised projections" in line 2. There is insufficient antecedent basis for these limitations in the claims.

Claims 12 and 13 recite the limitation "said plurality of fasteners" in lines 1-2.

There is insufficient antecedent basis for this limitation in the claims.

Claims 13 and 19 recite the limitation "said inner surface" in line 2. There is insufficient antecedent basis for this limitation in the claims.

Claim 17 recites the limitation "said raised projections" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitations "said plurality of fasteners" and "said inner surface" in lines 1 and 2. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Page 5

Art Unit: 3632

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6.005,314 to Fisher et al. (Fisher) in view of Admitted Prior Art of Figure 1 (APA) in view of U.S. Patent 3,787,014 to Story et al. (Story) and further in view of U.S. Patent 4,933,809 to Boede et al. (Boede). With regards to claims 5-14, 16-18, and 20, Fisher discloses a motor comprising: a pair of endshields (58, 60); a cylindrical housing (54) extending between the endshields and having inner and outer surfaces and a housing body extending between the inner and outer surfaces and comprising a thickness; and a stator-rotor assembly (72, 80) mounted within the housing, wherein the inner surface extends between the stator-rotor assembly and the outer surface. Fisher does not disclose the housing including a plurality of fasteners attached thereto and extending outwardly therefrom. The APA discloses a motor comprising a housing (12) including a plurality of fasteners (20) spaced circumferentially about the housing and extending outwardly therefrom for attachment to a support. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the housing of Fisher by providing a plurality of fasteners circumferentially spaced about the housing and extending outwardly therefrom because one would have been motivated to enable the motor to be attached within an application as taught by the APA (lines 3-6 of page 1 of the instant specification). Fisher in view of APA does not disclose the fasteners extending outwardly through openings in the housing. Story discloses a motor mount comprising a plurality of fasteners (66), inherently including a head, secured to the inner surface of the motor (by nuts as shown in Figure 2) and extending outwardly therefrom through attachment points/openings (56). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to have modified the housing of Fisher by providing openings therein and extending the fasteners outwardly through the openings, wherein the fasteners are inherently positioned between interior rotating motor components and the outer surface, as an alternative means for securing the fasteners to the motor as taught by Story (col. 3, lines 27-38) because one would have been motivated to prevent accidental "breaking off" of the fasteners. Fisher in view of APA in view of Story does not disclose the openings in the housing being included in raised projections extending outwardly from the housing. Boede discloses an apparatus comprising a housing member (47) having a body thickness and including a raised projection (58) defining a recess with an opening (56) therein, wherein a fastener (52) is attached to the inner surface of the recess, and wherein the raised projection has a thickness (at 57) that is approximately equal to the body thickness of the housing member (portion 48 generally). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the housing of Fisher by providing raised projections, having a thickness approximately equal to the thickness of the housing body, the projections extending outwardly from the housing and including openings therein for receipt of the fasteners because one would have been motivated to eliminate mounting bolt head protrusion above the inner surface of the housing as taught by Boede (col. 4, lines 49-55). Fisher in view of APA in view of Story and further in view of Boede does not teach the head of the fastener being substantially co-planar with the un-recessed portion of the inner surface of the housing. However, it would have been obvious to one of ordinary skill in

Page 7

the art at the time the invention was made to have modified the depth of the recess to be substantially equal to the height of the fastener head as is well known in the art such that the head is substantially co-planar with the un-recessed portion of the inner surface because one would have been motivated to reduce manufacturing costs by providing a recess having a height that sufficiently receives the fastener head and can be formed by using a limited amount of material and further since it has been held that a change in the size of a prior art device is a design consideration within the skill of the art.

Regarding claims 1-3, the method steps recited therein are inherent to the apparatus as applied above.

Regarding claims 4 and 19, Fisher in view of APA of Figure 1 in view of Story and further in view of Boede does not disclose the fasteners secured to the housing inner surface by a weld, crimp, or adhesive. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the motor mount by substituting a weld, crimp, or adhesive for nuts attached to the fasteners (see Fig. 2 of Story) since welds, crimps, adhesives, and nuts are well known for their use in the fastening art and the selection of any of these known equivalents to secure the bolts to the housing surface would be within the level of ordinary skill in the art. Specifically regarding claim 4, the method step recited therein is inherent to the apparatus as applied above.

Regarding claim 15, Fisher in view of APA in view of Story and further in view of Boede does not disclose the raised projections spaced circumferentially 90 degrees about the housing. It would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified the housing of Fisher by spacing the projections at 90 degree intervals about the housing since it has been held that the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

Claims 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art of Figure 1 (APA) in view of Story and further in view of Boede. With regards to claims 5, 6, 8-11 and 13, The APA discloses a cylindrical motor housing (12) comprising an internal cavity housing rotating components of a motor (inherent; see pg. 3, lines 1-3 of instant specification); an inner surface (14) extending between the rotating components and the outer surface (16) of the housing, a housing body extending between the inner and outer surfaces and comprising a thickness, and a plurality of fasteners (20) spaced circumferentially about the housing and extending outwardly therefrom. The APA does not disclose the fasteners extending outwardly through openings in the housing. Story discloses a motor mount comprising a plurality of fasteners (66) secured to the inner surface of the motor (by nuts as shown in Figure 2) and extending outwardly therefrom through attachment points/openings (56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the housing of APA by providing openings therein and extending the fasteners outwardly through the openings, wherein the fasteners are inherently positioned between interior rotating motor components and the outer surface, as an equivalent alternative means for securing the fasteners to the motor as taught by Story (col. 3, lines 27-38). The APA in view of Story does not disclose the openings in the

Application/Control Number: 10/026,847

Art Unit: 3632

housing being included in raised projections extending outwardly from the housing inner surface. Boede discloses a motor mount comprising a housing member (47) having a body thickness and including a raised projection (58) defining a recess with an opening (56) therein, wherein a fastener (52) is attached to the inner surface of the recess and wherein the raised projection has a thickness (at 57) that is approximately equal to the body thickness of the housing member (portion 48 generally). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the housing of APA by providing raised projections having a thickness approximately equal to the thickness of the housing body, the projections extending outwardly from the housing inner surface and including openings therein for receipt of the fasteners because one would have been motivated to eliminate mounting bolt head protrusion above the inner surface of the housing as taught by Boede (col. 4, lines 49-55).

Regarding claim 7, the APA in view of Story in view of Boede does not disclose the raised projections spaced circumferentially 90 degrees about the housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the housing of APA by spacing the projections at 90 degree intervals about the housing since it has been held that the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

Regarding claim 12, the APA in view of Story in view of Boede does not disclose the fasteners secured to the housing inner surface by a weld, crimp, or adhesive.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the motor mount by substituting a weld, crimp, or adhesive for nuts attached to the fasteners (see Fig. 2 of Story) since welds, crimps, adhesives, and nuts are well known for their use in the fastening art and the selection of any of these known equivalents to secure the bolts to the housing surface would be within the level of ordinary skill in the art.

Response to Arguments

Applicant's arguments filed 11/2/04 have been fully considered, but are not persuasive.

Regarding applicant's argument that none of the applied references, alone or in combination, teach or suggest the fastener heads being potentially exposed to a rotating component such as the motor, examiner respectfully disagrees. The combination of Fisher, APA, Story and Boede as applied above as well as the combination of APA, Story and Boede as applied above each teaches the fastener heads being located within the interior of the housing and attached to the inner surface of the housing wall, therefore the fastener heads are positioned between the rotating motor components and the outer surface as claimed. Additionally the combinations each teach the inner surface of the housings extending between the rotating motor components and the housing outer surface (see Fisher and APA especially).

Applicant's argument regarding the recesses of Boede is not persuasive since the thickness of the recess (at 57 generally) as shown in Figure 5 is considered to be

approximately (defined as very similar or closely resembling) equal to the thickness of the body (47).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the references themselves provide suggestion and motivation for the combinations and such motivations are specifically recited in the rejections above.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Application/Control Number: 10/026,847 Page 12

Art Unit: 3632

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Naschica S. Morrison, whose telephone number is (703) 305-0228. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Leslie Braun can be reached at 703-308-2156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this Application should be directed to the Technology Center receptionist at (703) 306-1113.

Maschica S. Morrison
Patent Examiner
Art Unit 3632
1/5/05

ent Examiner PRIMARY EXAMINE
Unit 3632